

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A method of dynamically shortening error correction codewords in an error correction code interleaving arrangement that divides error correction codewords into segments for recording across a matrix, the method comprising:

defining a matrix wherein the matrix comprises user data and error correction codewords;

receiving user data for recording on a storage medium;

determining the size of the received user data and the amount of the matrix that will be filled by the received user data; and

recording error correction codewords segments in an interleave dynamically created to correspond only to the portion of the matrix filled by the user data.

2. (previously presented) The method of claim 1 wherein the user data is partitioned for recording onto the recording medium in a plurality of tracks, and each error correction codeword segment is recorded on a separate track.

3. (previously presented) The method of claim 1 wherein the matrix includes a predetermined number of partitions each dimensioned to hold a predetermined number of bytes of user data.

4. (previously presented) The method of claim 3 wherein if the user data does not fill all the partitions, shortening the error correction codewords to provide an interleave of the error correction codeword segments corresponding to the number of partitions filled by the user data.

5. (previously presented) The method of claim 1 further comprising:
reading the data from the storage medium;

determining when the data only fills a portion of the matrix; and
automatically recreating the error correction codewords as a function of the
dynamically created interleave recorded on the medium.

6. (original) The method of claim 5 wherein reading the data from the
storage medium comprises determining the shortening value of error codewords corresponding
the partial data fill.

7. (previously presented) A system for dynamically shortening error
correction codewords used in an error correction code interleaving comprising:

a data buffer for receiving user data, the data buffer including a processing
arrangement for determining the amount of data received in the data buffer;

an error correction code write buffer connected to the data buffer for receiving
the user data as well as an indication of the amount of data, the write buffer including a
processing arrangement for dynamically determining a shortening value for error correction
codewords that correspond to the amount of user data, and recording the user data and error
correction codeword segments dynamically in an interleave created to correspond only to the
portion of the matrix filled by the user data on a recording medium.

8. (original) The system of claim 7 wherein the write buffer processing
arrangement is further arranged to divide each of the determined number of error correction
codewords into a plurality of segments, and each segment is recorded on a different track.

9. (original) The system of claim 7 wherein the write buffer processing
arrangement is further arranged to process the user data into a predetermined number of
partitions each dimensioned to hold a predetermined number of bytes of user data, and only
partitions corresponding to the amount of user data are filled.

10. (original) The system of claim 7 wherein the write buffer processing
arrangement is further arranged to determine an amount of an error correction codeword

matrix that will be filled by the received user data, the shortening size of the error correction codewords is determined to correspond only to the portion of the matrix filled by the user data.

11. (original) The system of claim 7 further comprising:

an error correction read buffer having a processing arrangement for reading the data from the storage medium, and determining that the data only fills a portion of an error correction codeword matrix, wherein the read buffer processing arrangement automatically determines the shortening value of the error correction codewords corresponding the partial data fill.

12. (previously presented) The method of claim 1 wherein determining the amount of matrix that will be filled by the received user data comprises determining the number of partitions filled by the user data.